## (19) World Intellectual Property Organization

International Bureau



## # #0 DIO DINI #10 11 DIO 110 CENTO DELLA DORNA DINI 1 DI 111 DENLA CONTRE CINTO CINTO DI 111 DI 111 DI 111 DI

(43) International Publication Date 18 August 2005 (18.08.2005)

**PCT** 

## (10) International Publication Number WO 2005/076393 A2

(51) International Patent Classification<sup>7</sup>:

\_\_\_\_

H01M 8/00

(21) International Application Number:

PCT/JP2005/001877

(22) International Filing Date: 2 February 2005 (02.02.2005)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 2004-033257

10 February 2004 (10.02.2004) JP

- (71) Applicant (for all designated States except US): TOY-OTA JIDOSHA KABUSHIKI KAISHA [JP/JP]; 1, Toy-ota-cho, Toyota-shi, Aichi, 4718571 (JP).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): KATANO, Koji [JР/JР]; c/o TOYOTA JIDOSHA KABUSHIKI KAISHA, 1, Toyota-cho, Toyota-shi, Aichi 4718571 (JР).
- (74) Agents: NAKAMURA, Toshinobu et al.; c/o TOKYO CENTRAL PATENT FIRM, 4th Floor, Oak Building Kyobashi, 16-10, Kyobashi 1-chome, Chuou-ku, Tokyo, 1040031 (JP).

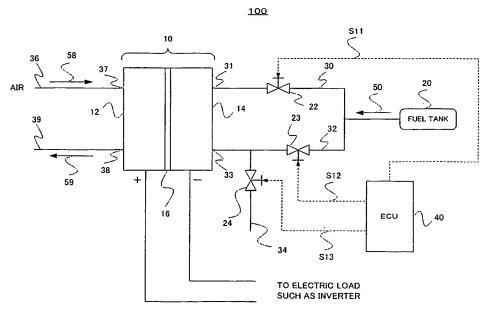
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

## Published:

 without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: FUEL CELL SYSTEM



(57) Abstract: A fuel cell system is loaded on a fuel cell automobile and the like. A fuel cell stack is constructed by an anode and a cathode, and an electric power is generated by supplying fuel gas (hydrogen) to the anode and supplying air to the cathode. The fuel cell system includes two supply passages for supplying the hydrogen to the anode. In addition, valves which control flow amounts of the hydrogen passing through the two supply passages are provided on the supply passages, respectively. Further, an exhaust passage which outputs exhaust gas from the anode is provided on the supply passage, and a valve is also provided on the exhaust passage. In t